DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

FEDERAL FISH AND WILDLIFE PERMIT

AMENDMENT #1

3-201
(10/86)

2. AUTHORITY-STATUTES
16 USC1539(a)(1)(B)

REGULATIONS (attached)
50 CFR §13 & 17

3. NUMBER
TE796769-1

4. RENEWABLE	5. MAY COPY
XXXX YES ____ NO	XXXX YES ____ NO

6. EFFECTIVE	7. EXPIRES
02/26/99	01/31/2025

1. PERMITTEE

STALLWORTH PRESERVE OWNERS ASSOCIATION
5021 HIGHWAY 98 EAST
DESTIN, FLORIDA 32541
PHONE: 850/837-1886
FACSIMILE: 850/837-3890

8. NAME AND TITLE OF PRINCIPAL OFFICER (if # 1 is a business)
KEITH HOWARD, PRESIDENT/DIRECTOR

9. TYPE OF PERMIT
ENDANGERED SPECIES - INCIDENTAL TAKE

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED

APPROXIMATELY 7 ACRES OF LAND, CONSISTING OF 13 LOTS (LOTS 1 THROUGH 14 - LOT 12 DIVIDED BETWEEN LOTS 11 AND 13) AND COMMON AREAS PER PLAT RECORDED IN PLAT BOOK 10, PAGE 29, OF THE PUBLIC RECORDS OF WALTON COUNTY, FLORIDA.

11. CONDITIONS AND AUTHORIZATIONS:

A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS.

B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL OR OTHER FEDERAL LAW. THE ORIGINAL PERMIT, ISSUED ON 02/02/1995, IS HEREBY AMENDED, REPLACED, AND SUBSTITUTED IN ITS ENTIRETY BY THIS AMENDMENT #1.

C. VALID FOR USE BY PERMITTEE NAMED ABOVE, AND ANY AUTHORIZED AGENTS.

D. ACCEPTANCE OF THIS PERMIT SERVES AS EVIDENCE THAT THE PERMITTEE AND ITS AUTHORIZED AGENTS UNDERSTAND AND AGREE TO ABIDE BY THE TERMS OF THIS PERMIT AND ALL SECTIONS OF TITLE 50 CODE OF FEDERAL REGULATIONS, PARTS 13 AND 17, PERTINENT TO ISSUED PERMITS. SECTION 11 OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED, PROVIDES FOR CIVIL AND CRIMINAL PENALTIES FOR FAILURE TO COMPLY WITH PERMIT CONDITIONS.

XX Block 11 of this Permit consists of Items A-S and Appendices A-C (14 Pages Total).

12. REPORTING REQUIREMENTS

REPORTS WILL BE PROVIDED TO THE U.S. FISH AND WILDLIFE SERVICE OFFICES APPEARING IN CONDITIONS R AND S OF THIS PERMIT.

ISSUED BY:	TITLE	DATE
H Dale Hall	DEPUTY REGIONAL DIRECTOR, FWS, SOUTHEAST REGION	3/8/99

ORIGINAL

5021 HIGHWAY 98 EAST
DESTIN, FLORIDA 32541
PHONE: 850/837-1886
FACSIMILE: 850/837-3890
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E. The Permittee is an Incorporated entity that represents the individual lot owners (Owner) that hold title to the individual lot(s) and common areas. The relationship between the Permittee and the implementation of the terms and conditions of this Permit must be clearly explained in the Stallworth Preserve Owners Association Bylaws (Bylaws), the Amended and restated Articles of Incorporation of the Stallworth Preserve Owners Association, Inc. (Articles), and the Declaration of covenants and restrictions of Stallworth Preserve (Covenants). Accordingly, the Permittee must inform each Owner of his/her individual and collective responsibilities and mandates as described in the HCP and this permit. All conditions of this permit automatically will be assigned and transferred to each Owner and shall run with the real property encompassed by the Project. The Permittee shall be defined as those entities which hold, or will hold, fee simple title to any portion of the real property identified in BLOCK #10 above over the duration of the permit.

F. The Permittee owns a ±7-acre tract as described in Block 10, above, and proposed to construct and operate a real estate development called Stallworth Estates (Project). The Project will result in the permanent destruction of 23.4 percent (73,753 sq. ft. or 1.69 acres of a total 7.0 acres) of known or potential habitat of *Peromyscus polionotus allophrys*. This permit authorizes incidental taking of *Peromyscus polionotus allophrys* associated with construction of the Project and associated infrastructure, and subsequent human habitation of the Project, as conditioned herein and subject to the continued validity of the permit.

G. Within ninety (90) days of the effective date of this amended Permit, the Permittee must amend the Bylaws, Articles, and Covenants to ensure full and timely compliance with this Permit. Such amendments to the Bylaws, Articles, and Covenants must incorporate all conditions of this Permit and will be approved of in writing by the contact offices of the U.S. Fish and Wildlife Service as identified in Conditions S and T, below.

H. The Permittee shall permit the U.S. Fish and Wildlife Service personnel, State of Florida Game and Fresh Water Fish Commission personnel, or other properly permitted and qualified persons designated by either agency to enter the Project boundaries at reasonable hours and times for the general purposes specified in Part 50 Code of Federal Regulations §13.21(e)(2), and in addition, for the specific purpose of monitoring the extant population of *Peromyscus polionotus allophrys*.

I. Within the timeframe as described in Condition 11.G, above; the Project's Covenants must identify the following minimum performance standards for purposes of protecting *Peromyscus polionotus allophrys*.

1. A brief description and information on the need, intent, and purposes of this permit, and conservation of *Peromyscus polionotus allophrys*.

CONTINUED...

I. (Continued)

2. Identification of the requirements and responsibilities contained in the permit. Permittee is required to provide a copy of the permit to each Owner. In addition, each Owner shall maintain a copy of the permit in the residence for use by lessees or others who hold under the Owner. The responsibilities to be identified include the following:

a. Prohibition on the maintenance or ownership of free-roaming cats or dogs within the Project. Pets confined inside individual homes are permissible.

b. Use of refuse containers which are scavenger-proof and rodent-proof.

c. Prohibition on the use of flood lighting within the Project. All lights within the Project must be shielded to avoid illuminating any natural habitat areas, including dunes and along the beachfront of the Project. Further, any lighting of the Project and for individual lots must conform to the specifications outlined in Appendix A - Sea Turtle Nesting Beach Lighting Restrictions.

d. All of the Project's components (e.g., including homesite construction, parking areas, and driveways) constructed after this Permit Amendment issuance shall conform to the square footage as specific in Appendix B - Building And Drive/parking Area Square Footage.

e. All plant species used for landscaping the common areas and individual lots must be selected from an indigenous plant list provided in Appendix C. Variances or exceptions to this requirement for individual lots will be considered upon written request.

f. Up to five (5) dune walkovers may be constructed on raised piling. The five (5) walkovers are to be located 1) on Lot 7; 2) Shared by Lots 8 and 9; 3) between Lots 10 and 11; 4) on Lot 13; and 5) on Lot 14. Note that the Walkover between Lots 10 and 11 shall be the community walkover. No lighting of boardwalks is permitted.

g. The exterior use of rodenticides is strictly prohibited.

h. Identification of the requirements of establishing and maintaining a special assessment to fund minimization and mitigation measures identified in Conditions J and M, below, and other requirements of this permit.

CONTINUED...

J. The Permittee shall continue funding a *Peromyscus polionotus allophrys* study (Study). The Study shall be redirected and refined to: 1) assess *Peromyscus polionotus allophrys* behavior on undeveloped (Topsail Hill State Preserve) and low density developed (Four-Mile Village) areas; 2) assess behavior of translocated *Peromyscus polionotus allophrys* released into existing populations (Grayton Beach State Recreation Areas); and if sufficient time and budget allow, 3) reintroduction of *Peromyscus polionotus allophrys* onto Stallworth Preserve. The funding shall be generated through a two-thousand dollars ($2,000) per year assessment for each owner of lots 1,2,3,4,5,6,7,8,9,10, 11, 12 (shared by lots 11 and 13), 13, and 14. A total of twenty-eight thousand dollars ($28,000) will be assessed for each year for two (2) years for a grand total of fifty-six thousand dollars ($56,000). Auburn University shall conduct the study(s) in coordination with U.S. Fish and Wildlife Service. The Permittee shall ensure that the study continues uninterrupted.

K. Permanent alteration of the natural vegetation and topography of each of the 13 lots (lot 12 shared by lots 11 and 13) of the Project will not exceed the square footage per building and driveway indicated on Appendix B (Building and Drive/Parking Square footage). An additional ten (10) feet outside of each building and driveway footprint may be temporarily disturbed during construction. Each Owner must restore this area to natural vegetation and dune contours after home construction is completed. At least ten (10) days prior to clearing or construction for each lot, the respective Owner shall contact the contact office of the U.S. Fish and Wildlife Service appearing in Condition S, below for final verification of building and driveway footprints, dune walkover construction and placement, and temporary disturbance area. This approval procedure should be incorporated into the Preliminary Design Review component of the Covenants (Article VIII). Upon approval and completion of construction, each restoration area shall be surveyed and recorded on the individual lots as a preserve area for *Peromyscus polionotus allophrys*. A certified survey, "As builts" of each lot's construction and associated Dune Restoration Plan shall be provided to the U.S. Fish and Wildlife Service in the Permittee's annual reporting.

L. Within ninety (90) days of the date of this Permit Amendment, the Permittee shall provide the U.S. Fish and Wildlife Service a final site layout that shows the permitted Homesite(s), Parking Area, Driveway, Roadway Footprints, and Dune Walkovers. The permitted dimensions shall be accurately depicted on the layout (The actual final footprints may be generalized). The layout shall be no smaller in scale than 1 inch = 30 feet.

M. The Permittee shall continue an interest bearing account for purposes of funding the monitoring requirements of this permit (Fund), and for deposit of any collected penalties as described in the submitted Habitat Conservation Plan (HCP). Each Owner of the real property of the Project for lots 1,2,3,4,5,6,7,8,9,10, 11, 12 (shared by 11 and 13), 13, and 14 will continue to annually deposit one-hundred dollars ($100) for a yearly total of

CONTINUED...

M. (Continued)

fourteen hundred dollars ($1,400). The Covenants must identify that the special assessment for implementation of the HCP cannot be dissolved under any circumstances. Dissolution constitutes grounds for suspension or revocation of the Permit and will subject the Permittee to enforcement action. Disposition of monies collected from the Fund may occur for the following activities:

1. Trapping to determine presence or absence of *Peromyscus polionotus allophrys* beyond the Study identified in Condition J, above.
2. Implementation of a removal program of potential *Peromyscus polionotus allophrys* competitors, including the house mouse, on an as needed basis.
3. Funding an independent contractor to monitor the integrity of the habitat fences placed to restrict the extent of clearing during individual home construction.
4. Continual garbage management and control responsibilities identified in the HCP.
5. Hiring of an independent contractor to write and submit the annual reporting requirements.

The Permittee may be required to raise the annual assessment, or be required to provide additional special assessments, should it be determined insufficient to adequately fund all of the aforementioned activities for full and timely compliance with this Permit.

N. By January 31 of each year the permit is valid, the Permittee will submit an annual report to U.S. Fish and Wildlife Service offices appearing in Conditions S and T below. In addition to the items specified below in O.1. through O.4, the Permittee shall also identify non-compliance and measures employed to remediate the non-compliance.

1. A narrative in each annual report must address the status of and implementation of the following minimization measures:

   a. Free-roaming animal control.

   b. Garbage and refuse management.

   c. Dune integrity and crossover status.

   d. Progress on landscaping requirements of the Project.

CONTINUED...

N. 1. (Continued)

e. Lighting requirements.

f. Status of lot construction and the lot's respective dune restoration plan.

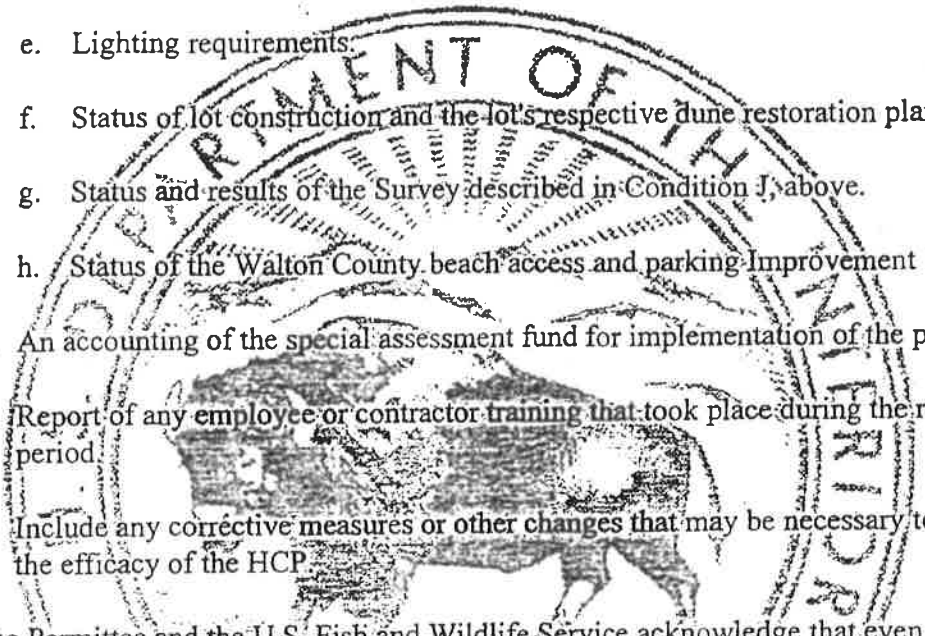
g. Status and results of the Survey described in Condition J, above.

h. Status of the Walton County beach access and parking Improvement Plan.

2. An accounting of the special assessment fund for implementation of the permit.

3. Report of any employee or contractor training that took place during the report period.

4. Include any corrective measures or other changes that may be necessary to improve the efficacy of the HCP.



O. The Permittee and the U.S. Fish and Wildlife Service acknowledge that even with the above detailed provisions for monitoring and minimizing impacts to *Peromyscus polionotus allophrys*, changed and/or unforeseen circumstances could arise which were not fully anticipated by this Permit and which may result in adverse impact to *Peromyscus polionotus allophrys*. Such circumstances may become apparent either to the developers of the Project, Owners, members of the Association, or to personnel of the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service's policy regarding changed and unforeseen circumstances is contained in the final "No Surprises" rule published on February 23, 1998 (63 Fed. Reg. 8859) and codified at 50 C.F.R. Part 17. Should either unforeseen or changed circumstances arise, the Permittee and the contact office of the U.S. Fish and Wildlife Service shall meet within twenty (20) working days following notice. The U.S. Fish and Wildlife Service and Permittee shall together agree upon appropriate and reasonable measures for addressing such circumstances, within the rule of applicable law, and the Permittee shall implement appropriate and reasonable measures within an additional thirty (30) working days.

P. The U.S. Fish and Wildlife Service intends to gather data on the impacts to *Peromyscus polionotus allophrys* resulting from development activities. In order to gather this data, it is important that any *Peromyscus polionotus allophrys* occupying the Project site not be relocated. In the event it is not possible to gather this type of data on the Project, the U.S. Fish and Wildlife Service may require the following minimization measures:

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P. (Continued)

1. In such circumstances, where observation confirms the actual presence of *Peromyscus polionotus allophrys* including any young, construction at and for a radius of at least 50 feet from the point of observation shall cease. The Permittee shall immediately notify the U.S. Fish and Wildlife Service office appearing in Condition T, below, and provide details of the activity and of the observation of *Peromyscus polionotus allophrys*. The U.S. Fish and Wildlife Service representative may, within 48 hours, initiate capture (including trapping, if appropriate) for the purpose of relocating as many *Peromyscus polionotus allophrys* as feasible from the area of observation. If circumstances indicate that capture is infeasible, the U.S. Fish and Wildlife Service representative will advise the Permittee to proceed, providing advice as to any reasonable modification of construction technology, procedure, or timing that will reduce or avoid further localized adverse effects on *Peromyscus polionotus allophrys* in the area of the disturbance.

Q. Upon locating a dead, injured, or sick *Peromyscus polionotus allophrys*, initial notification must be made immediately to the U.S. Fish and Wildlife Service, Division of Law Enforcement, 9549 Koger Boulevard, Suite 111, St. Petersburg, Florida 33702 (Phone: 727/570-5398). Notification should also be made (by the next work day) to the offices of the U.S. Fish and Wildlife Service noted in Conditions S and T, below. Care should be taken in handling sick, injured, or dead specimens to ensure effective treatment or to preserve biological materials for later analysis. In conjunction with the care of sick or injured endangered species or preservation of biological materials from a dead animal, the finder should take responsible steps to ensure that the site is not unnecessarily disturbed.

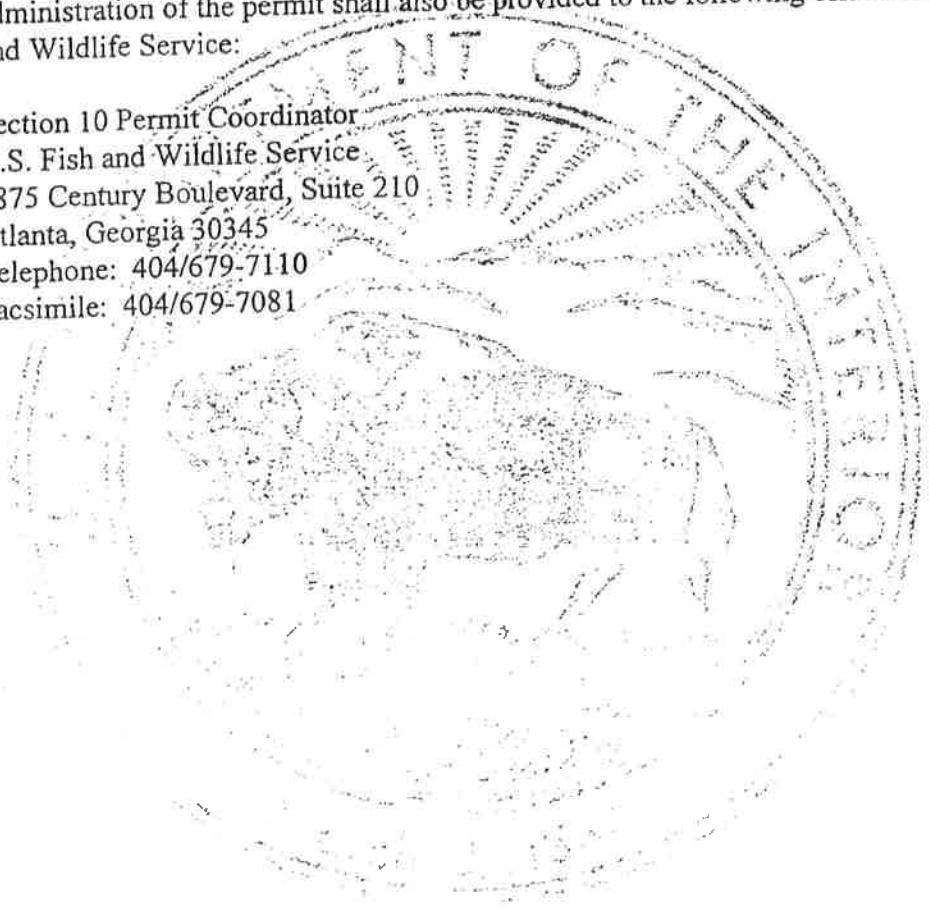
R. For purposes of monitoring compliance and administration of the terms and conditions of this permit, of review and approval of clearing of individual lots, the placement(s) of structure(s), and placement(s) of dune crossover(s) the contact office of the U.S. Fish and Wildlife Service is:

Field Supervisor
U.S. Fish and Wildlife Service
1612 June Avenue
Panama City, Florida 32405-3721
Telephone: 850/769-0552
FAX: 850/763-2177

CONTINUED...

S. Annual reports and any correspondence generated from implementation, modification, or administration of the permit shall also be provided to the following office of the U.S. Fish and Wildlife Service:

Section 10 Permit Coordinator
U.S. Fish and Wildlife Service
1875 Century Boulevard, Suite 210
Atlanta, Georgia 30345
Telephone: 404/679-7110
Facsimile: 404/679-7081



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TE796769-1 (Amendment #1)

APPENDIX A
SEA TURTLE NESTING BEACH LIGHTING RESTRICTIONS

Minimizing Beach Lighting from Outdoor Sources

Light from artificial sources identified as problems should be managed so that light reaching the nesting beach is minimized. Once problem lights are identified, there are number of methods by which this goal can be met. Many of these methods allow the function of the lighting to be retained or even enhanced.

all year

1. Turn the lighting off, or better yet, remove the luminaire. In some cases this is the only solution to the problem and it is almost always the most simple and least expensive. The critical time of the year that lighting should be extinguished is both the nesting and hatching season of sea turtle species that nest locally.

2. Reduce the wattage of problem lighting. For a given lamp type (e.g., high pressure sodium vapor) and style of fixture *(e.g.,* flood light), reducing the wattage of the luminaire (or lamp) will reduce the amount of light emitted. When changing lamp types or fixture styles, manufacturers data on luminance (typically given in lumens) should be consulted.

3. Change the style of luminaire to one that is more directional. Directional luminaries allow better control of light from the source so that light is cast primarily onto areas where it is needed, thereby minimizing errant light that can harm sea turtles. Lower-wattage directional luminaries can replace higher-wattage multidirectional luminaries. Luminaries should not be directed onto the nesting beach or any object visible from the beach.

→ and dunes

4. Shield light sources from the nesting beach. To be effective, light shields should be completely opaque, sufficiently large, and positioned so that light from the shielded source does not reach the beach. In most cases, light shields can be fashioned from materials that are inexpensive and easily obtained. Plywood, aluminum and galvanized steel flashing, and some opaque plastics make excellent light shields. Tar paper shields can be effective but do not endure weathering well. Painting luminaire globes and fastening tinted acrylic or acetate as light shields are poor methods, as neither paint nor tinting is sufficiently opaque. Good shielding should provide a cutoff angle of 90^0 or more. Luminaries are diverse enough to require customized light shields in most cases. In many cases changing light fixtures to more directional or recessed styles will provide more efficient and permanent solutions to problem lighting.

A 5. Recess luminaries into eaves of roofing. Recessed sources will be more directional, and if directed downward will be less visible from the beach than multi directional lighting.

CONTINUED...

6. Lower mounted luminaries or substitute pole-mounted luminaries with low, louvered, bollard fixtures. The lower a light source is mounted the smaller an area it will illuminate. In addition, sources mounted lower will tend to have a greater degree of shielding -from the beach by objects on the dune (vegetation, buildings, etc.). Sources mounted high on poles that are near the beach can be impossible to shield from the beach. The post-like stature of bollard fixture luminaries, and the light directing louvers with which they can be fitted, constitute an ideal way to keep light close to the ground and to minimize errant light.

7. Redirect luminaries away from the nesting beach. Even sources that are poorly directional can be redirected so that the brightest portion of the light field emitted is pointed away from the beach.

8. Reposition luminaries to take advantage of natural light shields. Necessary luminaries should be positioned on the landward side of any buildings or vegetation at the site.

9. Install timers to switch off lighting when no longer needed in the evening. This tactic by itself is only minimally effective in solving lighting, problems because both nesting and hatchling emergence can occur throughout the night. To be most effective, timers should be set to turn lights off in the early evening, no more than two hours after dusk. Humans themselves tend to be poor 'timers" because of forgetfulness and uncertainty over responsibility..

10. Install motion-detector switches. Lighting connected to motion-detector switches only comes on when the fixture itself is approached by a large object and then switches off after a set time following the last detected motion. This puts the light source on only when it is needed for safety or security. The time lighting remains on can be adjusted for many units and should be set at no more than 30 seconds if possible. This type of lighting should not be used in high-traffic areas visible from the beach. In general, motion-detector switches are a better solution to lighting problems than timers, are relatively inexpensive, and are widely available (in the USA). Motion detectors can be used only with incandescent lighting (yellow, bug light bulbs are a good match with motion detectors).

11. Plant native dune vegetation as a light buffer. Planting light-blocking vegetation on the primary dune can help alleviate problems with light that escapes the management techniques outlined above. To be most effective, vegetation should be near the crest of the dune closest to the beach where woody, well-established vegetation normally grows. Salt-tolerant, bushy, densely leaved native plants are the most suitable.

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Minimizing Beach Lighting from Indoor Sources

Indoor light sources should not be overlooked as significant sources of problem light. The criterion for identifying problems with indoor lighting is the same as for outdoor lighting. Sources emitting light visible from the beach should be considered problem sources.

Indoor lighting causes the greatest problem for sea turtles where buildings are close to the beach, are very tall, or have large sea-side windows. Because indoor lighting is usually not meant to light the outdoors, effects of indoor lighting, can be largely eliminated without compromising the function of lighting in the least.

1. Turn off lighting in rooms that are not in use. Reminder notices placed on switches in oceanfront rooms can help in this effort.

2. Relocate movable lamps away from windows that are visible from the beach.

3. Tint windows visible from the beach so that light passing, from inside to outside is substantially reduced. A good tinted glass or window tinting, treatment will reduce visible light from the inside to 45% or less (transmittance $\leq$ 45%).

4. Draw opaque drapes, blinds, or other light-blocking, screens after dark to completely cover windows visible from the beach. Covering windows at night should be a matter of course for modest occupants. Although the outside cannot be seen through a window of a lighted room at night, those outside can easily see in. By drawing window coverings, both sea turtles and privacy can be spared.

Use of Alternative Light Sources

Each of the light management methods heretofore discussed can reduce the effects of artificial lighting on sea turtles. However, because efforts to dim, direct, and block light are bound to be imperfect, some light from artificial sources may escape to the beach. A useful strategy in reducing the effects of artificial lighting still further lies in ensuring that errant light on the beach possesses properties that make it minimally disruptive to sea turtles. These minimally disruptive properties require a spectral distribution that excludes short wavelength (UV, violet, blue, and green) light.

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APPENDIX B

Building and Drive/Parking Area Square Footage

Lot	Bldg. SF	Drive/Parking	Total Sq. Ft.
1	2736	800	3536
2	2310	750	3060
3	2800	750	3550
4	2356	750	3106
5	2856	700	3556
6	2937	700	3637
7	2236	1981	4217
8	3720	950	4670
9	4700	1050	5750
10	4200	1150	5350
11	5346	985	6331
13	6666	940	7604
14	3186	1200	4386
TOTALS	46,049 Sq. Ft.	12706 Sq.Ft.	58,753 Sq.Ft.
		Roadway	15,000 Sq.Ft.
		Project Total	73,753 Sq.Ft.

TEAMWORK

ok - August '02

lot 11

5,117 1,214 6331

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APPENDIX C

Species Plant List for Coastal Walton County, Florida

Scientific Name	Common Name	Height	Container	Primary & Secondary Dune	Inter-dunal	Scrub dune
Trees						
Magnolia grandiflora	Southern Magnolia	60'-90'	1gTP,3gTP,D			X
Osmanthus americanus	Wild Olive	70'	1gTP,3gTP,D			X
Pinus clausa	Sand Pine	20'	1gTP,3gTP,D			X
Pinus elliottii	Slash Pine	80'-100'	1gTP,3gTP,D			X
Quercus geminata	Sand Live Oak	30'	1gTP,3gTP,D			X
Quercus myrtifolia	Myrtle Oak	40'	1gTP,3gTP,D			X
Quercus virginiana maritima	Sand Live Oak	40'-50'	1gTP,3gTP,D			X
Medium to Large Shrubs & Small Trees						
Callicarpa americana	Beautyberry	5'	1gTP,TB,D			X
Erythrina herbacea	Eastern Coralbean	4' (25')	1gTP,TB,D	X		X
Ilex vomitoria	Yaupon Holly	20'	1gTP,TB,D			X
Iva frutescens	Marsh-Elder	11'	1gTP,TB,D		X	
Rhus copallina	Winged Sumac	10' (30')	1gTP,TB,D		X	X
Serenoa repens	Saw Palmetto	10' (30')	1gTP,TB,D			X
Small Shrubs & Ground Covers						
Schizachyrium maritimus	Bluestem		LT,TB	X		
Asclepias humistrata	Sandhill Milkweed		LT,TB			X
Bignonia capreolata	Cross Vine		LT,TB			X
Cakile constricta	Sea Rocket		LT,TB	X		
Ceratiola ericoides	Seaside Rosemary		LT,TB			X
Chryosoma pauciflosculosa	Seaside Goldenrod		LT,TB	X		X
(T) Chrysopsis gossypina cruiseana	Cruise's Golden Aster		LT,TB	X		X
Conradina canescens	Beach Heather		LT,TB	X		X
Cyperus sp.	Sedge		LT,TB		X	
Heterotheca subaxillaris	Aster (Camphor weed)		LT,TB	X		X
Hydrocotyle bonariensis	Pennywort		LT,TB	X	X	X
Ipomoea pes-caprae	Railroad Vine		LT,TB	X		
Ipomoea stolonifera	Beach Morning Glory		LT,TB	X		

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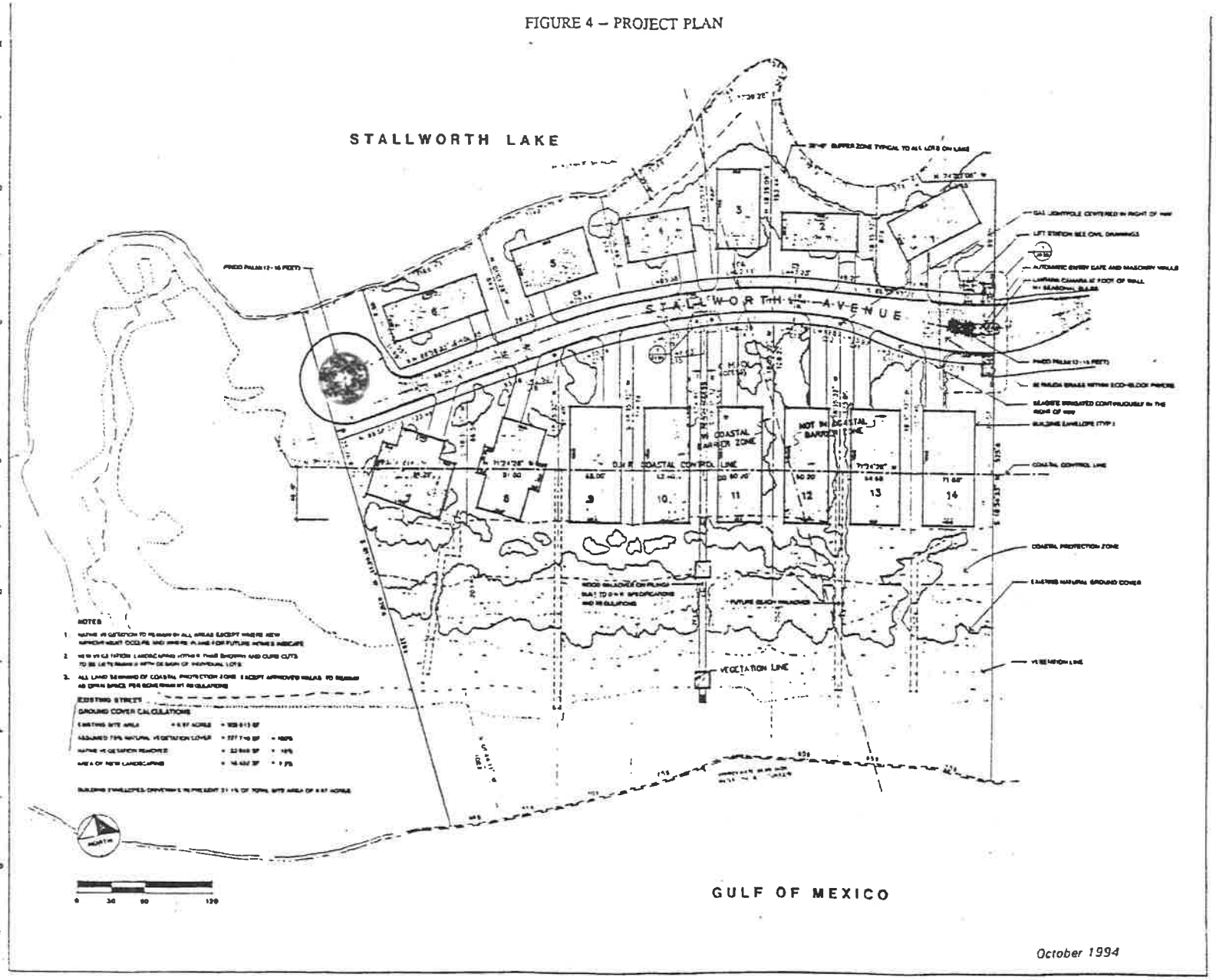
Licania Michauxii	Gopher Apple		LT,TB			X
Panicum amarum	Beach Grass		LT,TB	X		
(E) Polygonella macrophylla	Large-leaved Jointweed		LT,TB			X
Tradescantia ohiensis	Spiderwort		LT,TB			X
Uniola paniculata	Sea Oats		LT,TB	X		

T & E = State of Florida protected plant. Planting is stongly encouraged to help recover the species. Make sure the nursery you purchase the plant from is in the Association of Florida Native Plants; they follow all State regulations to grow and sell protected species.
1gTP = 1 gal tree pot 3gTP = 3 gal tree pot LT = Leach tube TB = Tree band D = Dee pot

END

FIGURE 4 – PROJECT PLAN



STALLWORTH
WALTON COUNTY • FLORIDA

SITE LAYOUT

20.00

Correct address:

630 Grand Blvd
Suite 100
Destin, FL
32541

STALLWORTH PRESERVE OWNERS ASSOCIATION
5021 HIGHWAY 98 EAST
DESTIN, FLORIDA 32541
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Scientific Name	Common Name	Height	Container	Primary & Secondary Dune	Inter-dunal	Scrub dune
Trees						
Magnolia grandiflora	Southern Magnolia	60'-90'	1gTP,3gTP,D			X
Osmanthus americanus	Wild Olive	70'	1gTP,3gTP,D			X
Pinus clausa	Sand Pine	20'	1gTP,3gTP,D			X
Pinus elliottii	Slash Pine	80'-100'	1gTP,3gTP,D			X
Quercus geminata	Sand Live Oak	30'	1gTP,3gTP,D			X
Quercus myrtifolia	Myrtle Oak	40'	1gTP,3gTP,D			X
Quercus virginiana maritima	Sand Live Oak	40'-50'	1gTP,3gTP,D			X
Medium to Large Shrubs & Small Trees						
Callicarpa americana	Beautyberry	5'	1gTP,TB,D			X
Erythrina herbacea	Eastern Coralbean	4' (25')	1gTP,TB,D	X		X
Ilex vomitoria	Yaupon Holly	20'	1gTP,TB,D			X
Iva frutescens	Marsh-Elder	11'	1gTP,TB,D		X	
Rhus copallina	Winged Sumac	10' (30')	1gTP,TB,D		X	X
Serenoa repens	Saw Palmetto	10' (30')	1gTP,TB,D			X
Small Shrubs & Ground Covers						
Schizachyrium maritimus	Bluestem		LT,TB	X		
Asclepias humistrata	Sandhill Milkweed		LT,TB			X
Bignonia capreolata	Cross Vine		LT,TB			X
Cakile constricta	Sea Rocket		LT,TB	X		
Ceratiola ericoides	Seaside Rosemary		LT,TB			X
Chryosoma pauciflosculosa	Seaside Goldenrod		LT,TB	X		X
(T) Chrysopsis gossypina cruiseana	Cruise's Golden Aster		LT,TB	X		X
Conradina canescens	Beach Heather		LT,TB	X		X
Cyperus sp.	Sedge		LT,TB		X	
Heterotheca subaxillaris	Aster (Camphor weed)		LT,TB	X		X
Hydrocotyle bonariensis	Pennywort		LT,TB	X	X	X
Ipomoea pes-caprae	Railroad Vine		LT,TB	X		
Ipomoea stolonifera	Beach Morning Glory		LT,TB	X		

CONTINUED...

STALLWORTH PRESERVE OWNERS ASSOCIATION
5021 HIGHWAY 98 EAST
DESTIN, FLORIDA 32541
PHONE: 850/837-1886
FACSIMILE: 850/837-3890

TE796769-1 (Amendment #1)

Licania Michauxii	Gopher Apple		LT,TB			X
Panicum amarum	Beach Grass		LT,TB	X		
(E) Polygonella macrophylla	Large-leavedJointweed		LT,TB			X
Tradescantia ohiensis	Spiderwort		LT,TB			X
Uniola paniculata	Sea Oats		LT,TB	X		

T & E = State of Florida protected plant. Planting is stongly encouraged to help recover the species. Make sure the nursery you purchase the plant from is in the Association of Florida Native Plants; they follow all State regulations to grow and sell protected species.
1gTP = 1 gal tree pot 3gTP = 3 gal tree pot LT = Leach tube TB = Tree band D = Dee pot

END

Native Plant Nurseries – Northwest Florida

CNPS, Inc. 5951 Olgesby Road Milton, Fl. 32570 (850) 623-6287 Contact: Sarah Davis cnpsair@aol.com www.sea-oats.com Specializes in Sea Oats and native coastal plants	Rancho La Orquidea, Inc. 1124 Pearson Road Milton, Fl. 32583 (850) 983-8948 Contact: Alice Lezcano e-mail orchidfarm@aol.com Wholesale only. Supplies plants for mitigation projects. Specializes in trees, shrubs, wildflowers, herbs, orchids, ferns, ornamental grasses, wiregrass, vines
Southern Native Plants Specialties, Inc. 6322 Mary Kitchens Road Milton, Florida 32583 (850) 983-9121 Contact: Paul Humbert e-mail sonative@yahoo.com Large selection of native upland, coastal and emergent plants.	The Garden Gate 3268 Fordham Parkway Gulf Breeze, FL 32561 (850) 932-9066 Contact: Emily, Elizabeth & Eleanor Peterson Large selection of native plants, gardening supplies and lawn and garden decorations
The Gourd Garden & Curiosity Shop 4808 East County Road 30-A Santa Rosa Beach, Fl. (850) 231-2007 Contact: Randy Harelson www.gourdgarden.com Specializes in native perennials and herbs	Evergreen Landscaping, Inc. P.O. box 2270 Santa Rosa Beach, Fl. 32459 (850) 267-1717 Contact: Toni Wheeler e-mail evergreen@gnt.net Specializes in landscape maintenances and retail native plants, like saw palmetto, wax myrtle, ornamental grasses, and goldenrod.
Apalachee Native Nursery Rt. 3, Box 156 Monticello, FL 32344 (850) 997-8976 Contact: William Dickerson Specializes in large trees apalnative@aol.com specializes in large trees	Emerald Coast Growers 7410 Klondike Road Pensacola, Fl 32526 (850) 944-0808 Contact: Paul Babikow www. ecogrowers.com Wholesale to the trade only. Specializes in ornamental grasses.
Morningstar Nursery Jim Morningstar 2207 Stacey Road Cantonement, Fl. 32533 (850) 968-2251	Niceville's Garden Center Dan & Tammy Winchenbach 1502 John Sims Parkway Niceville, Fl 32578 (850) 678-4105 Large selection of native plants.
E.A. Hauss Nursery Alabama Wildlife Nursery 4165 Ross Rd. Atmore, Al 36502 (334) 368-4854	Joshua Timberlands Nursery 29650 Comstock Rd. Elberta, Al 36530 (334) 986-5210

Native Plant Nurseries – Northwest Florida

The Echo Center 1055 Echo Circle Pensacola, Fl 32514 Contact: Ed & Perrin Penniman (850) 478-1985 e-mail echocenter@yahoo.com Specializes in native trees, shrubs, perennials. Sales and education. By appointment only.	Superior Trees P.O. Box 9325 Lee, Fl. 32059 Contact: Alan Webb (850) 971-5159 Wholesale only. Specializes in native trees and shrubs, containers and bareroot.
Greenup Santa Rosa Santa Rosa Clean Community System Gardens 304 Park Ave., NE Milton, Fl. 32570 Contact: John Tonkin (850) 623-1930 e-mail greenupsr@aol.com Nice selection of native trees and perennials.	Santa Rosa Gardens P.O. Box 1187 Gulf Breeze, Fl. 32562 Contact: Paul Babikow www.santarosagardens.com Specializes in Perennials, hostas, irises, daylilies Order On-line or by fax. Ship UPS.
Florida Department of Environmental Protection Ecosystem Restoration Greenhouse Ellyson Field Pensacola, Florida (850) 475-5590 Contact: Cary Levins e-mail cary.levins@dep.state.fl.us Restoration projects and propagation of native fresh and saltwater emergent plants.	Dune Doctors Contact: Frederique Perret (850) 939-7737 Coastal dune restoration and erosion control Consultant, and plant broker www.DuneDoctors.com
University of Florida Milton Gardens P.O. Box 3634 Milton, Florida 32572 Contact: Dr. Mack Thetford (850) 985-2632 e-mail thetford@ufl.edu	Greenbriar Farms Nursery 170 Underwood Road Monticello, Fl. 32344 (850) 997-8343 cell (850) 933-0805 greenbriarfarms@hotmail.com Large selection of native plants.
Mail Order Native P.O. Box 9366 Lee, Fl. 32059 Contact: Amy Webb (850) 973-4688 Retail supplier of hard to find native plants. Mail order only, ship UPS.	Trillium Gardens 3532 Trillium Court Tallahassee, FL. 32312 Contact: Dan Miller (850) 893-5757 e-mail dsmillerfl@aol.com Specializes in wildflowers of the deep south, native trees and shrubs

Native Plant Nurseries – Northwest Florida

Resources:

http://www.afnn.org/
Florida Native Nursery directory

http://www.fnai.org/ The Florida Natural Areas Inventory, good info about natural communities and endangered species are listed by county!

http://www.plantatlas.usf.edu/default.asp good guide to vascular plants of Florida, contains pictures, descriptions and occurrences

http://biology.usgs.gov/ U.S. Geological Service, lots of good natural resource info

http://www.tncflorida.org/ The Nature Conservancy, natural resource and conservation information

Books:

Author Name	Date	Title	Publisher	Volume and pages
Dressler, Robert L., et al	1987	Identification Manual for Wetland Plant Species of Florida	University of Florida, IFAS, Gainesville, Florida	297 pps
Farrand, John Jr.	1988	Eastern Birds: An Audubon Handbook	McGraw-Hill, New York, New York	495 pps
Gilbert, Katherine M., et al	1995	Florida Wetlands Delineation Manual	Florida Department of Environmental Protection, Tallahassee, Florida	197 pps
Hoyer, Mark V., et al	1996	Florida Freshwater Plants: A Handbook of Common Aquatic Plants in Florida Lakes	University of Florida: IFAS, Gainesville, Florida	264 pps
Martin, Alexander C., et al	1951	American Wildlife and Plants: A Guide to Wildlife Food Habits	McGraw-Hill, New York, New York	500 pps
Tobe, John D., et al	1998	Florida Wetland Plants: An Identification Manual	Florida Department of Environmental Protection, Tallahassee, Florida	598 pps
Taylor, Walter Kingsley	1992	The Guide to Florida Wildflowers	Taylor Publishing Dallas, Texas	320 pps.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1875 Century Boulevard
Atlanta, Georgia 30345

IN REPLY REFER TO:

February 1, 1995

Memorandum

To: Acting Regional Director, FWS, Atlanta, GA

From: Assistant Regional Director (ES), FWS, Atlanta, GA (TE)

Subject: Biological Opinion: Stallworth Preserve Permit in Walton County, Florida (PRT-796769, FWS Log 4-1-95-120D).

This memorandum represents our draft Biological Opinion, furnished in accordance with Section 7 of the Endangered Species Act of 1973, as amended (Act), regarding the subject incidental take permit (ITP). Fish and Wildlife Service (Service) approval of an ITP is a Federal action subject to consultation under Section 7(a)(2) of the Act. This document addresses the requirements of the Act but does not address other environmental laws. An administrative record of this consultation is on file in the Service's Jacksonville, Florida, Field Office.

PROJECT DESCRIPTION

The project involves development of 7 acres of dune habitat into 14 single-family homes and necessary infrastructure. The entire site is likely occupied by Choctawhatchee beach mice (CBM), *Peromyscus polionotus allophrys*. The site is located southwest of County Road 30A, in Sections 4 and 5, Township 3 South, Range 20 West, in Walton County, Florida. The project, as described in the Stallworth Preserve Habitat Conservation Plan dated October 1994 (amended January 1995), would likely result in the incidental take of some of the CBM (federally listed as endangered) that are likely present on the site.

To minimize impacts to CBM resulting from the proposed construction activity, the applicant will ensure no more than 4,000 square feet of any of the lots are permanently altered; no more than an additional 1,000 square feet of each lot will be temporarily altered. To ensure compliance during construction, a habitat fence will be constructed prior to the grading of each lot, warning of the penalties for disturbing beyond its limits. In addition, the developer will hire an independent contractor to assure grading is not taking place in preserved habitat. Use of preserved habitat for placement of septic tanks or drainfields will be prohibited. Driveways cannot exceed 10 feet in width, and parking is limited to a 20-foot by 20-foot area. Access to the beach will be limited to no more than five elevated boardwalks across the dunes. No other trails or accesses will be provided.

To minimize impacts to nesting sea turtles that may use the site, rear yard lighting on beachfront lots will consist of shielded downlights with no interior reflective surfaces. In addition, any windows visible from the beach will be tinted so that light will be reduced. There will be no lighting allowed on boardwalk accesses to the beach.

As mitigation for impacts, the applicant proposes to fund a five-year CBM trapping and radio telemetry study that will monitor precise impacts to CBM as development of the site proceeds. This data will assist the Service in making decisions on future beach mouse incidental take applications. Funding for the study will come from individual lot owners, who will pay $2,000 each for a period of five years.

In addition, each of the lot owners will pay an additional $100 per year to fund long-term monitoring of the site. Activities to be funded will include trapping to determine presence or absence of CBM beyond the intensive five-year study discussed above. If house mice (*Mus musculus*) appear at the site, a program will be implemented to remove them. Additionally, 2,000 copies of a CBM educational brochure will be produced to be provided to the residents of Stallworth Preserve and the school system of Walton County. The applicant will also be responsible for enforcing the covenants and restrictions adopted to further minimize impacts, including monitoring of trash receptacles and storage, restricting free range of house pets, and ensuring that no exterior use of rodenticides is taking place.

CONSULTATION HISTORY

On November 24, 1992, the Panama City Field Office (PCFO) notified this office Jacksonville Field Office (JFO) that bulldozers were destroying dunes on the project site. On December 9, 1992, PCFO notified JFO that the owner had been told of the presence of critical habitat for CBM on the property. On December 15, 1992, PCFO reported that mouse tracks were seen by them on the site, and they were fairly certain the tracks belonged to CBM. By letter on January 5, 1993, the PCFO allowed completion of the roadway at the site to stabilize the unauthorized work in an effort to prevent further degradation of the habitat. On January 6, 1993, the developer and representatives of the developer, PCFO, JFO, and the Florida Game and Fresh Water Fish Commission (GFC) met to discuss the Habitat Conservation Planning (HCP) process. To avoid the time a trapping study would take, the developer accepted the mouse tracks on the site were made by beach mice and not house mice; he committed that he would proceed with an HCP as quickly as possible. On February 4, 1993, a meeting was held in Auburn, Alabama to discuss what would be required of the developer to obtain an incidental take permit pursuant to the provisions of Section 10(a)(1)(B) of the Act. The meeting was attended by representatives of the developer, GFC, PCFO, JFO, and the Alabama Cooperative Fish and Wildlife Research Unit (Coop Unit). An initial draft of an HCP was also presented to the Service at that meeting.

On February 8, 1993, the JFO contacted the developer's representative to discuss the outcome of the February 4 meeting and to discuss the shortcomings of the submitted HCP. The JFO followed up with a letter on February 23, 1993. On March 12, 1993, the Coop

Unit provided a draft study plan to the JFO containing a proposed mitigation strategy for the project. After coordination with Service and GFC, on March 29, 1993, the study plan was forwarded to the developer for review. On June 18, 1993, a site plan of the proposed project was forwarded to JFO; in a follow-up telephone conversation, the developer's representative stated that a new draft HCP would be submitted by mid-July. That draft was received over a year later.

After learning that lots were being sold with no CBM resolution, the JFO sent a reminder (dated June 15, 1994) to the developer, encouraging him to solve the CBM problem on the project site. This was followed with letters to individual lot purchasers on June 16, 1994. On August 12, 1994, a second draft HCP arrived in the JFO for review. Comments on inadequacies of the document were sent from JFO on August 17, 1994. Changes were faxed to JFO by the developer's consultant on August 23, 1994; JFO comments were provided by telephone on August 25, 1994. Another draft was received by JFO on September 16, 1994; JFO comments were provided by letter on October 4, 1994. A complete application for an incidental take permit (ITP) for CBM pursuant to Section 10(a)(1)(B) of the Act was received in JFO on November 1, 1994 and forwarded to the Regional Office (RO) for further processing. A letter outlining concerns of the Service regarding the ability to permit the application was sent to the developer on November 4, 1994. The availability of the permit application and the Environmental Assessment was published in the Federal Register on November 25, 1994. Throughout the comment period and afterward, additional coordination on changes necessary to permit the project took place between the applicant, JFO, and the RO.

In response to the Federal Register notice, three comment letters were received. Two additional comment letters were received after the close of the comment period. A summary of these comments can be found in the Finding of No Significant Impact accompanying this permit package.

SELECTED BIOLOGY AND EFFECTS OF THE ACTION

The oldfield mouse (*Peromyscus polionotus*) is restricted to Alabama, Georgia, extreme northern Florida, and the southern part of South Carolina (Bowen 1968). Sixteen subspecies of this species are currently recognized. Eight of the subspecies, collectively known as beach mice, occupy coastal dune habitat in Florida and Alabama. Three of the subspecies occur along the Atlantic coast of Florida from Jacksonville to Hollywood Beach, and five occur on the Gulf coast from Mobile Bay, Alabama, to Cape San Blas, Florida (Hall 1981). Three of the Gulf coast subspecies of beach mice were listed as endangered pursuant to the Endangered Species Act of 1973, as amended, on June 6, 1985 (U.S. Fish and Wildlife Service 1985): the Alabama beach mouse (*P. p. ammobates*), the Perdido Key beach mouse (*P. p. trissyllepsis*), and the CBM. Factors used to list these beach mice included 1) present or threatened destruction, modification or curtailment of species' range, 2) disease or predation, 3) inadequacy of existing regulatory mechanisms, and other natural or manmade factors affecting the species' continued existence, including susceptibility to tropical storms

and hurricanes, and competition with house mice.

The CBM is distinctly more orange-brown or yellow-brown on the pigmented dorsum than are the other subspecies. In general, it is paler and shows more white than the inland forms. The CBM is endemic to Florida (Holler 1992) and was once present in continuous populations along the coastal dunes between Choctawhatchee Bay and St. Andrew Bay, Florida (Bowen 1968). At the end of his study, Bowen noted that more than two-thirds of the habitat for this subspecies had been lost as a result of coastal development. Presently, populations are known to occur on about 6.5 km of beach dunes at Topsail Hill and 9.4 km on Shell Island, and a third population was established by translocation in 1987 and 1988 at Grayton Beach State Recreation Area (Holler 1992). Minimum effective population size for long-term survival of beach mouse populations has not been estimated.

According to Holler (1992), optimal habitat for this mouse consists of the primary and secondary dunes vegetated primarily by sea oats (*Uniola paniculata*), beach grass (*Panicum amarum*), and bluestem (*Schizachyrium maritimum*). Other locally common plants include beach grass (*Panicum repens*), beach morning glory (*Ipomoea stolonifera*), pennywort (*Hydrocotyle bonariensis*), and, on the frontal slopes, sea rocket (*Cakile constricta*). Additionally, the mice are known to occupy the older scrub dunes found adjacent to and immediately inland to the optimal habitat. These dunes are characterized by scrubby oaks (*Quercus virginiana and Q. myrtifolia*), dwarfed magnolia (*Magnolia grandiflora*), and rosemary (*Ceratiola ericoides*).

On the project site, the foredunes are vegetated with almost pure stands of sea oats, with sparse coverage by beach grasses and sea rocket. Pennywort, marsh cordgrass (*Spartina patens*), salt grass (*Distichlis spicata*), rushes such as *Juncus scirpoides* and certain sedges (*Cyperus* sp.) are found in the lower damper swales between the dunes. Other herbs found on the site include camphorweed (*Heterotheca subaxillaris*) and whitlow-wort (*Paronychia* spp.). Small shrubs that have some degree of salt tolerance such as rosemary and seaside goldenrod (*Chrysoma pauciflosculosa*) are found in the sea oat zone. A few tree species survive in a stunted salt-spray-trimmed condition in the dunes farthest from the Gulf of Mexico, including live oak (*Q. virginiana*), dwarfed magnolia, slash pine (*Pinus elliotti*), and yaupon holly (*Ilex vomitoria*) (Thomas Reid Associates 1994).

Two plants listed by the state of Florida are located on the site, the large-leaved jointweed (*Polygonella macrophylla*) and Cruise's golden aster (*Chrysopsis gossypina* ssp. *cruiseana*). The jointweed is listed as threatened by the State Department of Agriculture and is a federal Candidate 2 species. The golden aster is listed as endangered by the state and is a federal Candidate 2 species. These plants have been successfully salvaged and transplanted and propagated from seeds and/or cuttings in dunes similar to those found at the project site. The same techniques will be used at Stallworth Preserve to ensure that more individuals of these two species will exist after construction (Thomas Reid Associates 1994).

Food habits of beach mice are not fully understood. Foods eaten by inland forms indicate that oldfield mice are omnivore rodents, eating primarily seeds and invertebrates (Golly 1962, Gentry and Smith 1968). Food habits of beach mice have not been scientifically studied, but indications are that they are omnivores as well (Holler 1992, Moyers 1992).

Movements of a mouse within its home range are usually for foraging. Other motivations include breeding and the maintenance of various burrows utilized within the home range. Beach mice are nocturnal, and the degree of illumination by the moon is the most important factor governing the amount of activity on any given night. Low illumination inhibits activity, and in general, the mice are least active on stormy nights (U.S. Fish and Wildlife Service 1987). Since lighting impacts mouse behavior, sources of artificial light in beach mouse habitat needs to be avoided; the lighting restrictions required by the covenants and restrictions to minimize sea turtle impacts will also serve to minimize impacts to beach mice.

If the Stallworth Preserve project is completed as planned, about two acres (29%) of the 7-acre site would be covered by 14 houses, 1 road, and 14 driveways. Construction of the project would likely result in the incidental take of CBM. Take of CBM during construction would be minimized by the placement of houses primarily on areas of bare sand. The vast majority of burrowing animal or ghost crab holes which are found on the site are among the dense sea oats in the frontal dune. This area of frontal dunes would have no housing because it is in the coastal setback zone. The only intrusion into this prime CBM habitat would be carefully designed and constructed boardwalks.

Initial trapping on the Project, completed the week of January 23, 1995, did not reveal the presence of CBM. However, a single trapping event does not ensure the presence or absence of CBM on the site. Based on site conditions, and similar studies done for other subspecies of *Polionotus* on the coast of Florida and Alabama, it is estimated that fewer than 25 CBM occupy the site. It is possible, but not very likely, that more are present.

It is generally believed that beach mice and residential development are not compatible. While this theory has not been tested rigorously, Bowen (1968) was so concerned about the role of domestic cats as predators on beach mice that he avoided trapping mice wherever he found cat tracks on the beaches. Another reason that residential development and beach mice may not be compatible is that house mice, which are often associated with human occupation, are thought to outcompete beach mice. While the house mouse-beach mouse interaction is not fully understood, Gentry (1966) found that house mice can rapidly invade disturbed habitats. Briese and Smith (1973) found that beach mice and house mice do not coexist on uninhabited beaches, but they do coexist in disturbed areas with human habitation. It is thought that in disturbed areas, house mice have an advantage over beach mice because they are not as susceptible to domestic predator predation (Bowen 1968), and they occupy the same burrows (Caldwell 1964).

With the exception of the northern tip of property adjacent to Stallworth Lake, and about 150 feet of the eastern portion of the property, the remainder of the site is within and forms the

eastern boundary of critical habitat designated for CBM (U.S. Fish and Wildlife Service 1985). Within this area, the major constituent elements that are known to require special management considerations or protection are dunes and interdunal areas, and associated grasses and shrubs that provide food and cover. Critical habitat for CBM covers 20.2 kilometers in length, and this project occupies only about 650 feet (200 meters), of which only 500 feet (154 meters) is located within critical habitat. This project will impact only about 0.76 percent of the shoreline length of critical habitat designated for CBM. Actual impacts would be significantly less, however, because only about two acres of the site will be developed, leaving the other 5 acres undisturbed and enhanced through plantings with native vegetation.

With the proposed mitigation, after the 14-house Stallworth Preserve project has been built and is occupied, the situation for the CBM as a subspecies should be improved, as compared to the pre-project scenario. As the site now exists, human activities are impacting the populations of CBM present. The site is currently adjacent to a public parking lot for beach access, and it contains a series of informal pedestrian and horse trails used for unauthorized access to the publicly-owned beach. Continued use of these trails has resulted in vegetation removal, wind erosion, and garbage accumulation, all of which are harmful to CBM. In addition, heavy housing development exists to the east of the site; there are no controls on pets in the area, subjecting any CBM on the site to predation.

Once the covenants and restrictions, along with long-term monitoring are in place, domestic predation should be reduced, along with potential impacts resulting from competition with house mice. In addition, access to the beach will be controlled by construction of dune walkovers, protecting the remaining CBM habitat onsite. The short-term study will fill a data gap to assist the Service in making decisions on future projects impacting beach mice. In addition, with its location at the eastern end of designated critical habitat, Stallworth Preserve will provide a buffer between existing development to the east and the remainder of critical habitat, much of which is still undeveloped, protecting CBM in that habitat from human-induced impacts.

Perhaps the most significant aspect of this proposed action is that it is consistent with most objectives of the species Recovery Plan (U.S. Fish and Wildlife Service 1987). Elements of the Recovery Plan which are addressed in the HCP include:

- conducting an extensive five-year study of the CBM,
- controlling predation of CBM by domestic animals,
- setting aside habitat of the beach mouse in perpetuity,
- protecting preserved habitat from foot traffic through the use of boardwalks,
- restoration of disturbed dunes within the preserved habitat, and

o control of garbage build-up and illegal trespass on the site.

BIOLOGICAL OPINION

This Biological Opinion is based on information furnished by the applicant and information from our Jacksonville, Florida Field Office.

Placing increased survival pressure, through loss of a portion of the constituent life support elements, of CBM at the eastern boundary of its critical habitat is not likely to significantly reduce the species' chance of survival in the wild. This coupled with the site's impacted habitat conditions in relation to surrounding development limit its value. The net effect of the action may be benign or neutral to the species. In consideration of the above, it is the Service's Biological Opinion that the action of issuing an ITP for CBM using the proposed construction site is not likely to jeopardize the continued existence of the Choctawhatchee beach mouse.

The activities proposed by the applicant will, in an absolute sense, lead to both direct and indirect alteration of lands designated as critical habitat for CBM. The activities are described in detail in earlier sections of this Biological Opinion and include homesite construction, dune walkover construction (direct alteration), and human habitation (indirect alteration). Service regulations define destruction and adverse modification of critical habitat as:

> a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.
> 50 C. F. R. §404.02 (1993).

The terms and conditions set forth in the Service's ITP address the anticipated direct and indirect alterations in detail with the purpose of minimizing any impact on the physical and biological features which formed the basis for the critical habitat designation. Therefore, the terms and conditions of the ITP, and issuance of the ITP will allow the applicant to undertake the activities proposed within critical habitat and will not appreciably diminish the value of the critical habitat for both the survival and recovery of CBM. Therefore, it is the Biological Opinion of the Service that the Federal action of issuing the ITP for CBM utilizing the project site is not likely to result in the destruction or adverse modification of critical habitat.

INCIDENTAL TAKE

The approval of the ITP will specifically allow the applicant to incidentally take the CBM in the course of the development as described herein. That authorization and the reasonable and prudent measures including monitoring, reporting and other conditions of the authorizing permit are incorporated by reference herein.

This concludes formal consultation on this action. Reinitiation of formal consultation is required if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the action that may impact listed species or critical habitat in a manner, or to an extent not considered in this Biological Opinion, (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this Biological Opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

Harland B. Rowles

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